GALONEN, Yu.M., kand.tekhn.nauk

A useful book ("Municiapl railways and roads" by V.G.Sosianets. Reviewed by IU.M.Galonen). Gor.khoz.Mosk. 32 no.8:39-40 Ag '58. (MIRA 11:9)

(Street railways--Construction) (Traffic engineering) (Sosianets, V.G.)

8(0) SOV/105-59-5-25/29

AUTHORS: Basurmanov, K. A., Engineer, Galonen, Yu. M., Candidate of Technical Sciences, Yefremov, I. S., Professor, Doctor of Technical Sciences, Ivanov, I. T., Candidate of Technical Sciences

TITLE: V. G. Sosyants

PERIODICAL: Elektrichestvo, 1959, Nr 5, p 92 (USSR)

ABSTRACT: A short curriculum vitae on the occasion of his 70th birthday. Born on November 27, 1888 in Tiflis. Entered the Moskovskiy tramvay (Moscow Streetcar Service) in 1908, studied at the same time and finished his studies at the Polytechnic Institute in 1916. He worked in the Moscow Streetcar Service until 1930 where he finally became chief engineer. From 1931-37 he worked in the system of the Narodnyy komissariat kommunal'nogo khozyaystva RSFSR (People's Commissariat for Municipal Economy of the RSFSR) and in the Vsesoyuznyy sovet kommunal'nogo khozyaystva pri TsIK SSSR (All-Union Sovet of the Municipal Economy at the TsIK of the USSR). From 1937 he has been conducting the Sector of Municipal Transport at the Akademiya kommunal'nogo khozyaystva im. Pamfilova (Academy of Municipal Economy imeni Pamfilov). Besides, he is working as a pedagogue.

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V. G. Sosyants SOV/105-59-5-25/29

He started his activity as a pedagogue in 1929 at the Institut narodnogo khozyaystva im. Plekhanova (Institute of Political Economy imeni Plekhanov) where he organized and gave lectures on municipal electric transportation. Later on he also worked at the Moskovskiy energeticheskiy institut (Moscow Power Engineering Institute) and other institutes. He published a number of scientific papers, text books, and manuals. In 1923 he organized the 1st All-Russian Streetcar Conference. He was a member of the Presidium of the Postoyannoye byuro vsesoyuznykh tramvaynykh s"yezdov (Permanent Office of the All-Union Streetcar Congresses), of the Vsesoyuznoye nauchnoye inzhenerno-tekhnicheskoye obshchestvo gorodskogo transporta (All-Union Scientific Technical Society of Municipal Transportation). Since 1954 he has been Deputy President of the Central Executive Committee of the Nauchno-tekhnicheskoye obshchestvo sanitarnoy tekhniki i gorodskogo khozyaystva (Scientific-technical Society of Sanitary Engineering and Municipal Economy). At the same time, he is Deputy President of the Section of Transportation of the Moskovskoye gorodskoye otdeleniye Vsesoyuznogo obshchestva po rasprostraneniyu politicheskikh i nauchnykh znaniy (Moscow Municipal Department of the All-Union Society for the Propagation of Political and Scientific Education), as well as a member of the Commission for the Reorganization of Municipal Trans-

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portation at the Mosgorispolkom, of the Tekhnicheskiy sovet Ministerstva kommunal'nogo khozyaystva RSFSR (Technical Council of the Ministry of Municipal Economy of the RSFSR), of the Uchenyy sovet Akademii kommunal'nogo khozyaystva (Scientific Council of the Academy of Municipal Economy) and of the Tekhnicheskiy sovet Mosgorispolkom (Technical Council of the Mosgorispolkom). He bears the Badge of Honor and various medals. There is 1 figure.

8(6), 12(4) SOV/105-59-5-27/29

AUTHORS: Galonen, Yu. M., Candidate of Technical Sciences, Molodykh, I. A., Engineer

TITLE: I. S. Yefremov. Mechanical Equipment of Trolley Buses (I. S. Yefremov. Mekhanicheskoye oborudovaniye trolleybusov). 2nd Edition, Revised and Completed. 351 Pages, Price 9 Rubles 10 Kopecks. Publishing House of the Ministry of Municipal Economy of the RSFSR, 1956 (Izd. 2-e, ispravlennoye is dopolnennoye. 351 str. ts. 9 rub. 10 kop. Izd-vo Ministerstva kommunal'nogo khozyaystva RSFSR, 1956). I. S. Yefremov. Electrical Equipment of Trolley Buses (I. S. Yefremov. Elektricheskoye oborudovaniye trolleybusov). 2nd Edition, Revised and Completed. 396 Pages, Price 10 Rubles 60 Kopecks. Publishing House of the Ministry of Municipal Economy of the RSFSR, 1958 (Izd. 2-e, ispravlennoye i dopolnennoye. 396 str., ts. 10 rub. 60 kop. Izd-vo Ministerstva kommunal'nogo khozyaystva RSFSR, 1958)

PERIODICAL: Elektrichestvo, 1959, Nr 5, pp 93-94 (USSR)

ABSTRACT: This is a book review. Both these books are textbooks of electromechanics and can be used as reference works by engineers and technicians of the trolley-bus transport companies. Both the books are clearly and fluently written and bring many data. A short survey of the contents of individual chapters is given,

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I. S. Yefremov. Mechanical Equipment of Trolley Buses. 2nd Edition, Revised and Completed. 351 Pages, Price 9 Rubles 10 Kopecks. Publishing House of the Ministry of Municipal Economy of the RSFSR, 1956. I. S. Yefremov. Electrical Equipment of Trolley Buses. 2nd Edition, Revised and Completed. 396 Pages, Price 10 Rubles 60 Kopecks. Publishing House of the Ministry of Municipal Economy of the RSFSR, 1958

and some shortcomings are pointed out. It is recommended for the next edition to deal with the problem of using single-phase current and semiconductor rectifiers in trolley buses, and to bring the constructional data and descriptions of the electrical equipment in the new types of trolley buses.

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GALONEN, Yu., kand.tekhn.nauk

"Electric equipment of refrigerating compressor plants" by D.S. Chukaev, V.S.Shcherbakov. Reviewed by IU.Galonen. Khol.tekh. 37 no.4 :67-68 Jl-Ag '60. (MIRA 13:11)
(Refrigeration and refrigerating machinery--Electric equipment)
(Chukaev, D.S.) (Shcherbakov, V.S.)

GALONEN, Yu., kand.tekhn.nauk

New book on municipal public transportation. Zhil.-kom. khoz. 10 no.4:34 '60. (MIRA 13:6)
(Local transit) (Road construction)

GALONEN, Yu.M., kand.tekhn.nauk

Electric power supply, electrical equipment, and automatic control. Mekh.stroi. 17 no.5:30-31 My '60. (MIRA 13:7)
(Automatic control)
(Electric driving)
(Electric power plants)

GALONEN, Yu., kand.tekhn.nauk

"Design, maintenance, and repair of street railway rolling stock" by M.S.Chertok. Reviewed by IU.Galonen. Zhil.-kom. khoz. 10 no.11: 33 '60. (MIRA 13:11)

(Streetcars)
(Chertok, M.S.)

GALONEN, Yuriy Mikhaylovich, kand.tekhn.nauk; ISLANKINA, T.F., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[Urban passenger transportation] Gorodskoi passazhirskii transport. Moskva, Izd-vo "Znanie," 1961. 47 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.4, Tekhnika, no.11)

(MIRA 14:7)

(Local transit)

GALONEN, Yu.M., kand.tekhn.nauk

Conference on streetcar and trolley bus transportation systems.
Elektrichestvo no.4:89-90 Ap '61. (MIRA 14:8)

1. Akademiya kommunal'nogo khozyaystva.
(Streetcars—Congresses)
(Trolley buses—Congresses)

GALONEN, Yu.M.

Using new types of public transportation in cities. Sbor.nauch. rab.AKKH no.13:174-191 '62. (MIRA 16:4)
(Local transit)

GALONEN, Yu. M., kand. tekhn. nauk

Moving sidewalks. Nov. tekh. zhil.-kom. khoz.: Gor. dor.-most. khoz. i transp. no. 2:116-129 '63. (MIRA 17:5)

GALONEN, Yu., kand. tekhn. nauk

"Modern designs of streetcar track" by V.G. Sosiants. Reviewed by IU. Galonen. Zhil.-kom. khoz. 13 no.5:29 My '63. (MIRA 16:8)

(Street railways) (Sosiants, V.G.)

GALONEN, Yuriy Mikhaylovich, kand. tekhn. nauk; IVANOV, S.M., red.

[Trains over the city; monorail railways] Poezda nad gorodom; monorel'sovye dorogi. Moskva, Izd-vo "Znanie," 1965. 31 p. (Novoe v zhizni, nauke, tekhnike. IV Seriia: Tekhnika, no.8) (MIRA 18:4)

Galanov, P. P.

USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1264

Author: Sventitskiy, N. S., Sukhenko, K. A., Galanov, P. P., Fal'kova, O. B., Alpatov, M. S., and Taganov, K. I.

Institution: None

Title: Spectral Determination of Nitrogen, Hydrogen, and Oxygen in Titanium and Its Alloys

Original Periodical: Zavod. laboratoriya, 1956, Vol 22, No 6, 668-673

Abstract: The determination of N, O, and H in Ti alloys and of H in Ti powder is described. The determinations were made with a type ISP-51 spectrograph (with a camera of f = 270 mm for N and O and a type UF 85 camera of f = 1,300 mm for H); type III spectroscopic plates were used for N and O and type 250 Government Standard panchormatic film was used for H. Several methods of excitation were tested, including low-voltage condenser sparks and single-pulse high- and low-voltage condenser discharges. The first method gave the best results with N,

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USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1264

Abstract: while the last method was found most effective for O and H. N and O were determined in an atmosphere of helium (700 and 500 mm Hg, respectively), while H was determined in air. For standards cast samples of Ti were used the N content of which had been determined chemically, and the O and H content -- by hot extraction. The following slit widths were used: 0.015 mm for N, 0.02 mm for O, and 0.07 mm for H. An exposure of one second was used for N with the following pairs: NII 3994, 995 A and TiI 3889, 954 A and TiI 3998, 640 A. In analysis for O the relative intensity of the lines OII 4705, 32 and OII 4596, 13 A and of the background was determined. In the case of H the darkening of the line H 6563 A was measured. The error in the determination of N is ±25%; of O, ±20-40% (as the energy of the discharge is increased, the intensity of the O-lines at first increases and then begins to drop off); and for H, ±8.8% for heat treated samples and ±15.5% for samples which have not been heat treated. For the determination of H in powdered Ti briquetted electrodes are used. Standard briquettes are prepared from titanium hydride and Cu powder. The error is ±10-13%.

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SVENTITSKIY, N.S.; SUKHENKO, K.A.; FAL'KOVA, O.B.; GALONOV, P.P.; TAGANOV, K.I.; ALPATOV, M.S.

Spectrum analysis of titanium, molybdenum, and their alloys for nitrogen, hydrogen, and oxygen. Fiz.sbor. no.4:225-231 '58. (MIRA 12:5)

1. Vsesoyuznyy ordena Lenina nauchno-issledovatel'skiy institut aviatsionnykh materialov.
(Gases in metals) (Spectrum analysis)

GALONOV, P.P.

24(7) SOV/48-23-9-29/57

AUTHORS: Sukhenko, K. A., Grigorova, V. S., Lindstrem, I. S., Sventitskiy, N. S., Galonov, P. P.

TITLE: The Determination of Oxygen in Technical Titanium by Means of the Spectral Method

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1116 - 1118 (USSR)

ABSTRACT: In the introduction mention is made of the papers published in recent years on the determination of gases in metals in general, and especially on the determination of oxygen in titanium (Refs 1-7). A pair of lines of oxygen and argon is given, by means of which the concentration of oxygen in titanium [illegible] determined within a range of 0.035 - 0.5%. Already in [illegible] paper (Ref 7) it was shown that the influence of [illegible] elements is lacking, and it is possible by this method to determine the oxygen content with an accuracy equaling that of vacuum melts or of bromine reductions. In the case of the experiments carried out here, titanium standards with an oxygen content of 0.01 - 2.0% were produced, in which case titanium sponge was mixed with TiO_2 in appropriate ratios. The electrodes

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were re-melted from these mixtures in a helium atmosphere and in a vacuum. The following investigations were carried out by means of these standards: The wear of the sample surface by the discharge, the influence of vacuum annealing on the concentration-sensitivity of the oxygen lines, and the selection of the most favorable conditions [illegible] of the oxygen lines. During the experiments the electrodes were in a special container, in which a pressure of 10^{-2} torr was maintained, and the samples were connected as cathodes. The anode was of carbon. In the case of pulsed discharges, practically no concentration sensitivity was found, only in connection with a previous preparation of the samples was it possible to prove the concentration-dependence of two lines of OI and OII suggested by N. G. Isayev for the spectral analysis. In the course of further experiments with spark discharges in helium at a pressure near that of the atmosphere, a dependence of line intensities on oxygen concentration was found to exist after the samples had previously been prepared by pulsed discharges; however, this dependence is so insignificant that it is not suited for a quantitative analysis. Ex-

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periments concerning the influence of annealing upon line intensities showed that the latter are independent of annealing. Experiments concerning the most favorable selection of the light source showed that low-voltage spark discharges are suited best. Figure 3 shows a diagram for the determination of oxygen in technical titanium according to the intensity of an oxygen line. This diagram was obtained by means of a low-voltage spark light source. Further investigations showed the usefulness of the DG-1-type generator for low-voltage spark discharges. There are 3 figures and 7 references, 2 of which are Soviet.

Card 3/3

ALPATOV, M.S.; GALONOV, P.P.; SUKHENKO, K.A.; FAL'KOVA, O.B.; Prinimali uchastiye: METELINA, L.D.; MOISEYEVA, K.A.; TISHIN, I.G.

Determination of the oxygen and nitrogen content in solid specimens of molybdenum and chromium by the spectrum analysis method. Trudy Kom. anal. khim. 12:288-297 '60. (MIRA 13:8)
(Molybdenum--Analysis) (Chromium--Analysis)
(Spectrum analysis)

24(7) SOV/48-23-9-32/57

AUTHORS: Sukhenko, K. A., Galonov, P. P., Barasheva, T. V.

TITLE: The Determination of Nitrogen in Steels of Various Compositions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1123 - 1126 (USSR)

ABSTRACT: In the present paper the development of a method of determining nitrogen in steel is dealt with. The experiments were carried out on standards, the production of which is outlined in the following stages: Selection of the material for the standards, production of the alloys, exact chemical determination of the composition, and investigation of their homogeneity. To stainless steel nitrogen was added in form of nitrogen-enriched ferrochrome. The nitrogen content amounted to 0.02 - 0.2%. The chemical investigations were carried out at the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute for Ferrous Metallurgy) and at the Institut metallurgii AN SSSR (Institute of Metallurgy of the AS USSR). Table 1 shows the calculated and the chemically determined nitrogen contents of the standards, and table 2 shows the general results of chemical analyses of the standards. Homogeneity was determined by means of spectral-

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analytical methods. In the discharge chamber helium was used as a neutral medium. The diagram of figure 1 shows the calibration line for nitrogen determination in steel. A low-voltage spark generator and a pulsed-discharge generator were used as light sources. The scheme of a combined generator is shown by figure 2. In this circuit miniature electrolytic condensers and paper condensers are used, and semiconductors serve as rectifiers. In the spectral analysis of nitrogen in steels the influence of "third" elements was found. All experiments carried out on samples with about 1% Al yielded too high values. An increase in chromium with a simultaneous decrease in nickel causes a steeper slope of the calibration curve. There are 2 figures and 4 tables.

GALONOV, P.P.

PHASE I BOOK EXPLOITATION SOV/4443

Akademiya nauk SSSR. Komissiya po analiticheskoy khimii

Metody opredeleniya primesey v chistykh metallakh (Methods of Determining Admixtures In Pure Metals) Moscow, 1960. 411 p. (Series: Its: Trudy, 12) 3,500 copies printed.

Resp. Eds.: A.P. Vinogradov, Academician, and D.I. Ryabchikov, Doctor of Chemical Sciences; Ed. of Publishing House: M.P. Volynets; Tech. Ed.: T.V. Polyakova.

PURPOSE: This collection of articles is intended for chemists, metallurgists, and engineers.

COVERAGE: The articles describe methods for detecting and determining various admixtures and their traces in pure metals. Also discussed are many chemical, physicochemical, electrochemical, spectrochemical and luminescence methods of analyzing materials of high purity. The editors state that these methods have been developed within the last five or six years by various Soviet scientific institutes, and are now widely used in research and factory laboratories of the Soviet Union. No personalities are mentioned. References, mostly Soviet, accompany each article.

AVAILABLE: Library of Congress

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GALONOV, P.P.; SUKHENKO, K.A.; SVENTITSKIY, N.S.; ISAYEV, N.G.; TISHIN, I.G.; BARASHEVA, T.V.

Determination of nitrogen in steel and of hydrogen in commericial titanium and its alloys. Trudy kom.anal.khim. 10:190-195 '60. (MIRA 13:8)

(Titanium--Analysis)
(Hydrogen--Analysis)
(Nitrogen--Analysis)
(Steel--Analysis)

GALONOV, A. P. ~~Sverdlovsk, A.~~

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PHASE I BOOK EXPLOITATION SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960. Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

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Materials of the Third Ural Conference (Cont.) SOV/6181

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

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18.8400 (2408)

AUTHORS: Sukhenko, K. A., Filatov, F. I., Galonov, P. P., Moiseyeva, K. A., Metelina, L. D.

TITLE: The analysis of aluminum alloys with a multichannel quantometer

SOURCE: Fotoelektricheskiye metody spektral'nogo analiza; sbornik statey. Moscow, Oborongiz, 1961, p. 44 - 65

TEXT: 100 mm long wires 7 mm in diameter, and cast electrodes and disks 50 mm in diameter and 40 - 50 mm thick, made of АМг (AMg) and duraluminum were analyzed with a 85-channel quantometer supplied by the firm ARL in the USA. The spectroscopic assembly consists of four constituent parts: (1) spectrometer with diffraction grating, slits, photomultipliers, and stand; (2) amplifying and recording device and timing relay; (3) adjustable high-accuracy light source, and (4) frequency and voltage stabilizer. A 1.5 m concave-ruled diffraction grating (960 lines/mm) is attached to the exit slot. The spectral range is 1500 and 7700 Å. Optical and electric diagrams are shown in Fig. 6. Hemispherical or truncated-cone graphite and

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The analysis of aluminum ...

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carbon electrodes are recommended. An air-conditioner supplied by Sulzer (Switzerland) is recommended for maintaining a constant temperature of 21 ± 0.5°C and humidity of 45 ± 2.5%. Analytical lines and operating conditions for the analysis of specially prepared standards of steel and Al, Mg, Ni, and Ti alloys are given in Table 1. Attenuators are selected in dependence on the concentration ranges of each element contained in the alloy (Table 4). The reproducibility of results obtained for AMg and duraluminum is shown in Tables 5 and 6. Analysis of 6 - 7 elements takes 2 - 3 minutes, with the automatic device. The accuracy (except copper) is 1 - 2%. and is somewhat higher when wire samples are used. There are 15 figures and 6 tables.

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Fig. 6. Optical and electric diagram of the apparatus. Legend: (A) Voltage and frequency stabilizer; (B) Low-voltage exciting circuit; (C) mains; (D) Voltage stabilization 220 v ± 1%; 50 cps ± 1%; (E) High-voltage spark; (F) Rotary chopper; (G) Spark stand; (H) Stationary electrode; (J) Rowland's circle; (K) Photomultiplier tube; (L) inlet slit; (M) exit slits; (N) visible region of the spectrum; (O) Sample; (P) diffraction grating; (Q) ultraviolet region of the spectrum; (R) Spectrometer; (S) Amplifying and recording device; (T) Sensitivity control; (U) Channels; (V) Calibration dial; (W) recorder; (X) Electrometer; (Y) Integrators; (Z) Relay.

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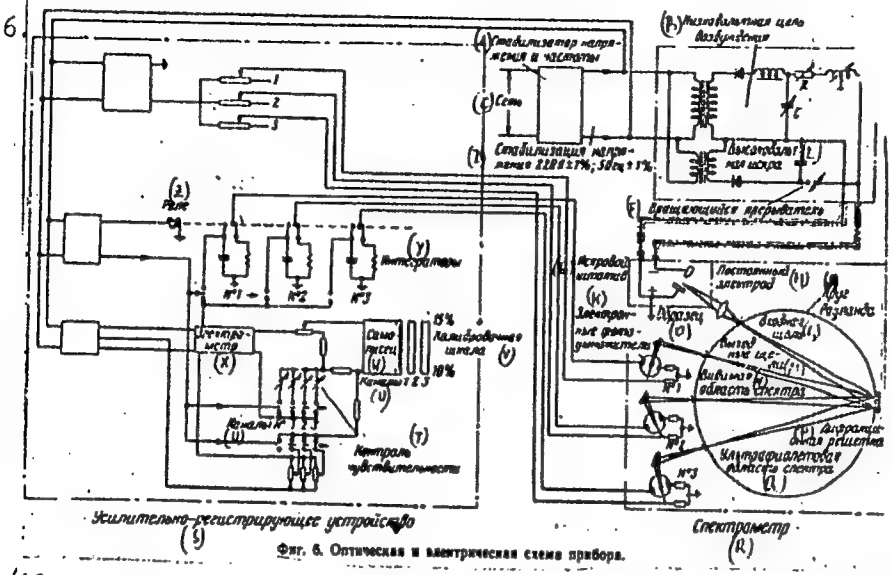
The analysis of aluminum ...

Fig. 6.



Фиг. 6. Оптическая и электрическая схема прибора.

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Table 1. Operating program of the ARL quantometer . Legend: (A) Elements; (B) Spectral lines; (C) Panel No. for exit slits; (D) Concentration ranges, in %, for the analysis of different alloys and steels; (E) Alloy steels; (F) low-voltage spark; (G) trace elements in steels; (H) titanium steels; (I) high-voltage spark; (J) nickel alloys; (K) aluminum alloys; (L) magnesium alloys; (M) Number of integrator; (N) Number of photomultiplier; (O) Number of channel; (P) Reference line; (R) Screen; (S) Undispersed light; (T) There are 23 integrators in all, 38 photomultipliers, 85 measuring channels; (U) Notes. 1. A, B, C, D, E, and F indicate the group of the alloys. 2. Screens are necessary to protect the photomultipliers against strong flux of light.

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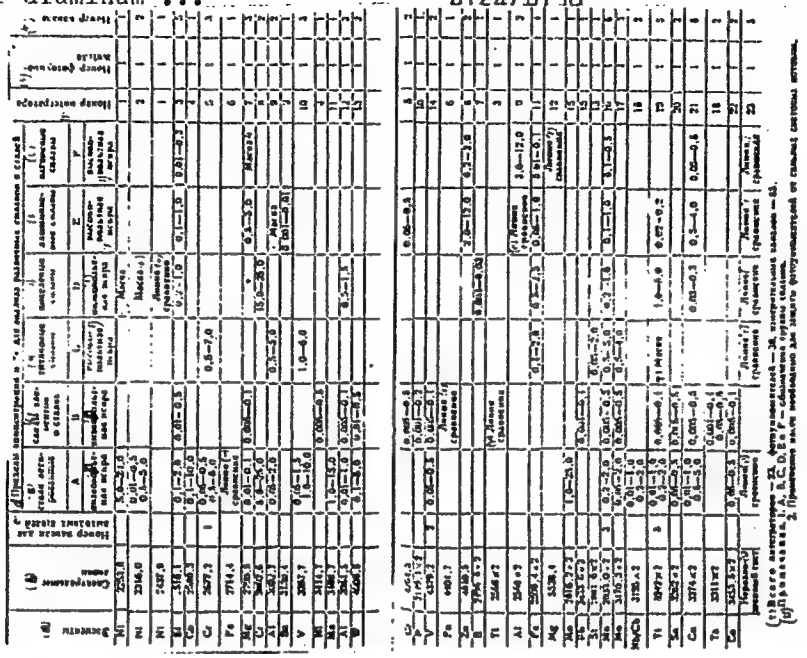
The analysis of aluminum ...

Table 1.



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The analysis of aluminum ...

Table 4. Selection of the attenuators. Legend: (A) Number of attenuator; (B) Element; (C) Position of attenuator; (D) AMg; (E) Duralumin; (F) Copper; (G) Beryllium; (H) Magnesium; (J) Iron; (K) Silicon; (L) Manganese; (M) Zinc; (N) Titanium; (P) Aluminum.

(A) Номер аттенюатора	(B) Элемент	(C) Положение аттенюатора	
		(D) АМг	дуралюмин
44	Медь (F)	12	8
11	Бериллий (G)	10	—
8	Магний (H)	4	10
30	(J) Железо	12	12
4	Кремний (K)	13	13
39	Марганец (L)	15	8
26	Цинк (M)	17	—
42	Титан (N)	25	—
29	Алюминий (P)	10	10

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Table 5. Reproducibility of analytical results for AMg-type aluminum alloys and duralumin (high-voltage spark used as the source of light). Legend: (A) Analytical lines, Å; (B) Mean arithmetical error, in %, of 20 to 40 determinations; (C) AMg, wire; (D) AMg, cast bars; (E) AMg, disks; (F) Duralumin, bars, wire; (G) Duralumin, disks; (H) Concentration ranges determined for both alloys; (J) Reference line; (K) Note. The carbon stationary electrode is hemispherical.

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The analysis of aluminum ...

Table 5.

(A) Аналитические линии, Å	(B) Средняя арифметическая ошибка в % из 20—10 определений					(F) Пределы определяемых концентраций по обоим сплавам
	(C) АМг, тянутая проволока	(D) АМг, прутки литые	(E) АМг, диски	(I) Дуралюмин, прутки, тянутая проволока	(G) Дуралюмин, диски	
Cu 3274	±1,2	±2,5	±2,7	±3,6	±5,0	0,07—6,9
Mg 2790	±2,5	±3,5	±2,0	±2,0	±1,5	0,08—7,5
Fe 2599	±0,73	±3,6	±2,0	±0,9	±1,8	0,10—1,6
Si 2516	±1,2	±2,2	±2,6	±1,5	±1,5	0,06—1,9
Mn 2933	±2,5	±4,2	±1,0	±2,0	±2,0	0,20—1,9
Be 3130	±1,0	—	—	—	—	0,001—0,008
Al 2568	Линия сравнения		—	—	—	—

(K) Примечание. Постоянный электрод — уголь, заточенный по форме полусферы.

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...nlysis of aluminum ...

Table 6. Reproducibility of the analytical lines of the duralumin-type aluminum alloy (low-voltage spark used as the source of light). Legend: (A) Analytical lines, Å; (B) Mean arithmetic error, in % of 60 determinations; (C) Duralumin, disks; (D) Range of concentrations determined; (E) Reference line.

(A) Аналитические линии Å	(B) Средняя арифметическая ошибка в % из 60 определений	
	(C) дуралюмин, диски	(D) пределы определяемых концентраций
Cu 3274	±1,6	1,0—6,1
Mg 2790	±2,65	0,5—2,0
Fe 2599	±3,3	0,4—2,0
Mn 2933	±2,8	0,2—1,1
Al 2568	(E) Линия сравнения	

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B124/B138

18.8400

AUTHORS: Sukhenko, K. A., Filatov, F. I., Moiseyeva, K. A., Galonov, P. P. Metelina, L. D.

TITLE: Determination of boron in nickel alloys

SOURCE: Fotoelektricheskiye metody spektral'nogo analiza; sbornik statey, Moscow, Oborongiz, 1961, p. 82 - 86

TEXT: The medium-dispersion quartz spectrograph ИСП-28 (ISP-28) and the diffraction-grating spectrograph ДФС-13 (DFS-13) and the ARL quantometer (USA) were used to determine the boron content of three types of nickel alloys. Operating conditions are given in Table 1. Optimum results were obtained with low-voltage spark; the mean arithmetical error for a sample containing 0.02% B was ±6%. T. M. Faytel'son and T. Ye. Sharovatova are mentioned. There are 4 figures and 2 tables.

Table 1. Conditions for the multichannel quantometer determination of boron in a nickel alloy. Legend: (A) Low-voltage spark; (B) Arc with spark gap; (C) ... microfarads; (D) ... microhenry; (E) ...

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S/701/61/000/000/004/005
B124/B138

Determination of boron ... .

... v; (F) ...ohms; (G) U_{ign}; (H) Analytical distance; (J) Sample "+"; carbon auxiliary electrode, hemispherical; (K) Sample "-"; carbon auxiliary electrode, hemispherical.

(A) Низковольтная искра	(B) Дуга с искровым режимом
(C) (D) C=10 мкф; L=50 мкгн; (F) U=250 в; $U_{вт}$=1000 в; R=5 ом. (E) (G) (E)	(C) (D) C=60 мкф; L=360 мкгн; (E) (G) (C) U=200 в; $U_{вт}$=300 в; (F) R=45 ом; I=4 а.
(H) Аналитический промежуток d=3,0 мм	(H) Аналитический промежуток d=3,0 мм
(J) Образец „+"; подставной электрод С, заточка по форме полусферы	(K) Образец „—"; подставной электрод С, заточка по форме полусферы

Card 2/2

GALONSKIY, B.P.

Petroleum and gas industries in the U.S.S.R. approaching the forty sixth anniversary of the Great October Revolution. Neft. khoz. 41 no. 11:1-5 N '63. (MIRA 17:7)

AMIYAN, V.A.; GALONSKIY, P.P.; LAVRUSHKO, P.N.; MURAV'YEV, V.M.

Progress in the exploitation of oil wells. Neft. khoz. 40 no.12:39-44 D '62. (MIRA 16:7)

(Petroleum production)

GALONSKIY, Pavel Petrovich; PERSHINA, Ye.G., redaktor; POLOSINA, A.S., tekhnicheskiy redaktor.

[The fight against paraffin in oil production; theory and practice] Bor'ba s parafinom pri dobyche nefti; teoriia i praktika. Moskva, Gos.nauchno-tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry, 1955. 148 p. (MLRA 8:9)

(Paraffins) (Petroleum)

15-57-7-10345

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 250 (USSR)

AUTHORS: Pavlichenko, A. A., Bazlov, M. N., Galonskiy, P. P.

TITLE: Results of Heat Application (Vystupleniya v preniyakh)

PERIODICAL: V sb: Metody uvelicheniya nefteotdachi plastov. Moscow, Gostoptekhizdat, 1955, pp 80-88

ABSTRACT: Bibliographic entry

Card 1/1

GALONSKIY, P. P., Dep. Min. of Pet. Ind. USSR.

"Utilization of Atomic Power for Peaceful Purposes and the Goals of the Soviet Petroleum Industry in this Field." Utlization of Radioactive Isotopes & Emanations in the Petroleum Industry (Symposium), Min. Petroleum Industry USSR, 1957

Results of the Joint Session of the Technical Council of Min. of the Petroleum' Industry USSR and Soviet Sci. and Technical Association, Moscow, 14-19 Mar 1956.

GALUSHKIN, P.S., redaktor; ZLOTNIKOV, I.M., redaktor; KALANTAROV, A.P., redaktor; L'VOV, M.A., redaktor; MAKSIMOVICH, G.K., redaktor; MURAV'YEV, V.M., redaktor; MUSTAFINOV, A.M., redaktor; MUSIN, A.Z., redaktor; TREBIN, F.A., redaktor; FANIYEV, R.D., redaktor; SAKHAN, Yu.K., veduchchiy redaktor; POLOSINA, A.S., tekhnicheskiy redaktor

[Exploitation of oil fields; proceedings of an All-Union conference of workers in oil extraction held at Kuybyshev in 1956] Opyt razrabotki neftianykh mestorozhdenii; trudy Vsesoiuznogo soveshchaniia rabotnikov po dobyche nefti, soatoiavshegosia v g.Kuybysheve 19-23 iiunia 1956 g. Moskva, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1957. 553 p. (MLRA 10:10)

1. Vsesoyuznoye soveshchaniye rabotnikov po dobyche nefti, Kuybyshev, 1956.
(Petroleum engineering)

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Natural Gases and Petroleum. Motor and Jet Fuels. Lubricants. I-8

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2512

Author : Galonskiy, P.P.
Inst :
Title : Results of the International Conference at Geneva on the Peaceful Utilization of Atomic Energy and the Problems of USSR Petroleum Industry in This Domain.

Orig Pub : Sb.: Primeneniye radioaktivn. izotopov i izlucheniy v neft. prom-sti. M., Gostoptekhizdat, 1957, 3-8

Abstract : No abstract.

Card 1/1

GAL[illegible]SKIY, P.P., kand. tekhn. nauk; AVANESOV, K., red.; BAKIYEV, K., tekhn. red.

[Development of the economy of the Kurkmen S.S.R. during the seven-year period, 1959-1965]Razvitie narodnogo khoziaistva Turkmenskoi SSR v semiletii, 1959-1965 gg. Ashkhabad, Ob-vo po rasprostraneniiu polit. i nauchnykh znanii Turkmenskoi SSR, 1959. 51 p. (MIRA 15:8)
(Turkmenistan--Economic policy)

GALONSKIY, P.P., kand.tekhn.nauk

For technical progress in oil production. Bezop.truda v prom. 7 no.1:3-6 Ja '63. (MIRA 16:2)

1. Chlen Gosudarstvennogo komiteta Soveta Ministrov SSSR po toplivnoy promyshlennosti.
(Petroleum engineering—Technological innovations)

GALONSKIY, P.P.; KOVALENKO, K.I.; KUVYKIN, S.I.; MINGAREYEV, R.Sh.; MURAVLENKO, V.I.; OBNOSOV, A.D.; SHASHIN, V.D.; SHMAREV, A.T.

Volga-Ural region is one of the largest petroleum bases of the country. Neft. khoz. 42 no.9/10:56-64 S-O '64.
(MIRA 17:12)

ALIDZHANOV, G.A.; ANNALIYEV, A.A.; GALONSKIY, P.P.; DADASHEV, Sh.A.; DENISEVICH, V.V.

Oil and gas production in Central Asia. Neft. khoz. 42 no.9/10:69-74 S-O '64. (MIRA 17:12)

KALAMKAROV, V.A.; ORUDZHEV, S.A.; GALONSKIY, P.P.; KRYLOV, A.P.; MAKSIMOV, M.I.; TREBIN, F.A.

Accomplishments of Soviet petroleum workers in the development of oil fields. Neft. khoz. 42 no.9/10: 89-99 S-O '64. (MIRA 17:1[illegible])

GALOS, B.

POL.

Electrophoretic separation of sugars and their derivatives. B. Galos and W. Ostrowski (School Med., Cracow). *Bull. acad. polon. sci. Classe II*, 2, 61–5(1954); cf. *C.A.* 44, 487a.—The electrophoretic sepn. of sugars as borate complexes and the detn. of the mobility of pentoses, hexoses, and uronic acids were applied to the analysis of oligo- and polysaccharides. Color was developed with Partridge's reagent by spraying the strip of paper with 8% HCl and heating to 100°. Ketoses react with borate more easily than do aldoses. All sugars migrate to the anode, glucosamine migrates toward the cathode, and acetylglucosamine toward the anode; pentoses and hexoses migrate more quickly than do oligosaccharides. The mobilities of saccharides at 20° in borate buffer of pH 8.0 on no. 4 Whatman paper are given. This method makes possible the sepn. of pairs of sugars which are not distinguished in chromatography because of very similar R_f values.

Oliver L. Barnes

Separation of sugars and their derivatives by paper electrophoresis. B. Galos and W. Ostrowski (*Acta biochim. polon.*, 1954/5, 1, 171—184).—The separation is effected by use of borate complexes. Sugars which have closely similar R_F chromatographically show considerable differences in rate of electrophoretic movement. The mobility of uronic acids was 1·5 × that of ketohexoses: that of hexoses approx. double that of corresponding methyl-hexoses and that of hexitols approx. half that of the corresponding sugars.

A. G. POLLARD.

MD

(1)

HUNGARY

[illegible], Tom[illegible], Dr, [illegible], Dr; [illegible] XIII. District Council [illegible] Robert Karoly Boulevard Hospital, I. Medical Ward (Budapest, Kovacs XIII. ker. Tanacs VB, Robert Karoly Krt-i Korhaz, I. Belosztaly).

"Experiences with the New Smooth-Muscle [illegible], [illegible]."

Budapest, Orvosi Hetilap, Vol [illegible], No [illegible], [illegible] pp 155-167.

Abstract: [Authors' Hungarian summary] The spasmolytic action of [illegible] was tested on 40 hospital patients. As fast acting [illegible] reliever, it was used most effectively in attacks due to stones. [illegible] administration is helpful in angina complaints. The spasmo-[illegible] effect was also beneficial in ulcer cases. [illegible] Hungarian references.

1/1

KRASZNAI, Ivan, dr.; GALOS, Gizella, dr.

Our experience with a new spasmolytic: NO-SPA. Orv. hetil. 104 no.4: 164-167 27 Ja '63.

1. Budapest Fovaros XIII. ker. Tanacs VB. Robert Karoly krt-i Korhaz, I. Belosztaly.

(MUSCLE RELAXANTS) (QUINOLINES) (VASCULAR DISEASES) (ULCER) (CHOLELITHIASIS) (KIDNEY CALCULI)

OLAH, Imre; ANTAL, Janos; GALOS, Gizella

Changes in systemic and retinal hypertension in hypertensive patients influenced by hypotensive agents. Kiserl. orvostud. 16 no.4:439-443 Ag '64.

1. Budapesti Orvostudomanyi Egyetem Neurologiai Klinikaja es Robert Karoly krt.-i korhaz I Belgyogyaszati Osztalya.

GALOS, M.; ŻYCZKOWSKI, M.

Analytical calculation of limit carrying capacity of isotropic bars subject to torsion. Bul Ac Pol tech 12 no. 2:79-88 '64

1. Department of Technical Mechanics, Technical University, Kraków. Presented by W. Olszak.

GALOS, Marian; ZYCZKOWSKI, Michal (Krakow)

Analytical method of computing the limit load carrying capacity of bars subject to torsion. Rozpr inz PAN 12 no.2:267-296 '64.

1. Technical University, Krakow.

Smith, W.

On analytical calculation of the limit carrying capacity of anisotropic and nonhomogeneous bars under torsion. Bul Ac Pol tech 12 no.5:301-307 '64.

1. Department of Technical Mechanics, Technical University, Krakow. Presented by W. Olszak.

GALOS-BICZOWA, B., Ostrowski, W., Krawczyk, A.

Zonal electrophoresis in the presence of adsorbents. p. 649.
(ACTA BIOCHIMICA POLONICA. Vol. 3, no. 4, 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.

GALOSHIN, A.

Water-supply pipes on roofs were of a great help. Pozh.delo 6 no.2:17 F '60. (MIRA 13:5)
(Fire extinction--Water supply)

GALOSHINA, E V.

24(3), 18(6) SOV/56-35-5-53/56

AUTHORS: Vol'kenshteyn, N. V., Turchinskaya, M. I., Galoshina, E. V.

TITLE: On the Particular Features of the Magnetization of Disordered Alloy Ni_3Mn at Low Temperatures (Ob osobennostyakh namagnicheniya neuporyadochennogo splava Ni_3Mn pri nizkikh temperaturakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 5, pp 1312-1313 (USSR)

ABSTRACT: It is known that the alloy Ni-Mn near the stoichiometric composition Ni_3Mn belongs to the class of self-ordering alloys with a sharply marked dependence of physical properties on the degree of order in the arrangement of atoms. The occurrence of strong ferromagnetism at the maximum degree of the remote order is particularly noteworthy. Thus, the saturation magnetization I_s of the alloy exceeds that of pure nickel by 50%. According to the experimental results obtained by the authors, the alloy Ni_3Mn becomes ferromagnetic already at the temperature of liquid nitrogen, in which case it holds that I_s = 1350 Oe. The Curie (Kyuri)-temperature Θ was determined from the data obtained by the precise measurement of the temperature

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On the Particular Features of the Magnetization of Disordered Alloy Ni_3Mn at Low Temperatures

dependence of the electric resistance, and in this way $\theta = 110^{\circ}K$ was found. An exact investigation of the magnetization curves at various temperatures up to the temperature of liquid helium shows that the character of magnetization has some particular features. Firstly, the curves plotted at 20.4 and 4.2°K after cooling of the sample from room temperature take a course that is much lower than that of the curves plotted in the case of repeated magnetization after previous demagnetization (by commutation from maximum field strength to zero at 20.4 and 4.2°K). This may perhaps be explained by the high energy of magnetic anisotropy. Secondly, the great difference between the magnetization curves plotted at 20.4°K and 4.2°K is remarkable. At field strengths of up to 18,000 Oersted the latter take a course that is much lower than that of the former and do not attain saturation. At 77.8°K coercive force amounts to 140 Oersted, and at 20.4°K it is 1,000 Oersted. Such a great increase indicates a high degree of temperature dependence of the constants of magnetic anisotropy. More accurate conclusions as to the nature of the magnetic properties of

SOV/56-35-5-53/56

On the Particular Features of the Magnetization of Disordered Alloy Ni_3Mn at Low Temperatures

the alloy Ni_3Mn in the disordered state can be drawn only after further accurate measurements will have been carried out. There are 2 figures and 3 references, 1 of which is Soviet.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute for the Physics of Metals of the Academy of Sciences, USSR)

SUBMITTED: August 8, 1958

Card 3/3

21(0) SOV/53-67-4-7/7

AUTHOR: Chentsov, R.

TITLE: The Fifth All-Union Conference on the Physics of Low Temperatures (5-ye Vsesoyuznoye soveshchaniye po fizike nizkikh temperatur)

PERIODICAL: Uspekhi fizicheskikh nauk, 1959, Vol 67, Nr 4, pp 743-750 (USSR)

ABSTRACT: This Conference took place from October 27 to November 1 at Tbilisi; it was organized by the Otdeleniye fiziko-matematicheskikh nauk Akademii nauk SSSR (Department of Physico-mathematical Sciences of the Academy of Sciences, USSR), the Akademiya nauk Gruzinskoy SSR (Academy of Sciences, Gruzinskaya SSR), and the Tbilisskiy gosudarstvennyy universitet im. Stalina (Tbilisi State University imeni Stalin). The Conference was attended by about 300 specialists from Tbilisi, Moscow, Khar'kov, Kiyev, Leningrad, Sverdlovsk, and other cities as well as by a number of young Chinese scientists at present working in the USSR. About 50 lectures were delivered which were divided according to research fields. [illegible] IV. Magnetism. A. S. Borovik-Romanov (IFP) delivered a report on investigations he carried out of the anisotropy of the weak ferromagnetism in monocrystal samples of the antiferromagnetic $MnCO_3$ (the effect of anisotropy was predicted by the thermodynamical theory developed by Dzyaloshinskiy). In the course of the discussion R. A. Alikhanov (IFP) spoke about neutronographical investigations he carried out of the magnetic structure of $MnCO_3$ and $FeCO_3$ at low temperatures. P. L. Kapitsa stressed the importance of the method based upon Dzyaloshinskiy's theory. N. M. Kreynes (VNIIFTRI), whose lecture was read by A. S. Borovik-Romanov, reported on measurements carried out by him (in the IFP) of the magnetic anisotropy of the antiferromagnetic $CuSO_4$- and $CoSO_4$-monocrystals.

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Ye. A. Turov (IFM AN SSSR, Sverdlovsk) spoke about his theoretical investigations of the magnetizability, the susceptibility, the specific heat, and the resonance frequencies of antiferromagnetics and weak ferromagnetics. A. I. Sudovtsov and Ye. Ya. Semenenko (KhFTI) spoke about measurements of the electric resistance of iron in magnetic fields in a wide temperature range with simultaneous plotting of the magnetization curve. N. V. Vol'kenshteyn, G. V. Fedorov, E. V. Galoshina and M. I. Turchinskaya (IFM AN SSSR) spoke about [illegible] of magnetization and the Hall effect of polycrystalline samples, nickel and Ni_3Mn at low temperatures. Ye. I. Kondorskiy, V. Rode, U. Gofman and Chang, Shou-ch'un (MGU) gave a report on susceptibility measurements on nickel and its alloys with copper at low temperatures; T. I. Sanadze (TGU) spoke about the spectrum of the paramagnetic resonance of Tb^{3+} in terbium nitrate at temperatures of liquid hydrogen. M. I. Kaganov and V. M. Tsukernik (KhFTI) dealt with the kinetic phenomena in ferromagnetics at low temperatures and with calculation of relaxation time; A. I. Akhiyezer, V. Bar'yakhtar and S. Peletminskiy (KhFTI) carried out a theoretical investigation of the relaxation of the magnetic moment in ferrodielectrics; Vlasov (IFM AN SSSR) showed that a linearly polarized elastic

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(ultrasonic) wave of a frequency of 10^9 cycles when passing through a ferromagnetic substance in the direction of the magnetic field, is subjected to a turn of the polarization plane of the order of 10^{-3} - 10^{-4} radian/cm oersted. M. I. Kaganov pointed out that in this connection yet another phenomenon may be observed, namely the resonance absorption of ultrasonics if the wavelength is equal to the radius of the Larmor orbit of the electron. V. Various Questions. One of the most interesting lectu-

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S/126/60/010/003/009/009/XX
E032/E314

9,4300 1035
24.7700 1143
1559

AUTHORS: Volkenshteyn, N.V. and Galoshina, E.V.

TITLE: The Temperature Dependence of the Residual Electrical Resistivity of Ordered Alloys

PERIODICAL: Fizika metallov i metallovedeniy, 1960, Vol. 10, No. 3, pp. 494 - 495

TEXT: The electrical resistivity of crystalline materials can frequently be used as a sensitive indicator of changes taking place in a solid specimen. This is due to the fact that crystal-lattice imperfections affect the behaviour of conduction electrons, and from this point of view the formation of short-range order should affect the character of the temperature dependence of electrical resistivity. The present authors have investigated the resistivity of Ni_3Mn and Cu_3Pd alloys as a function of the annealing temperature. The specimens were in the form of wires. Potentiometer leads were spot-welded onto them and were made of the same material. The distance between the two points was 1 cm. The specimens

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The Temperature Dependence of the Residual Electrical Resistivity of Ordered Alloys

were heated in evacuated ampules for between one and several hours. The resistivity was measured by the ППТН-1 (PPTN-1) potentiometer at two temperatures, namely, room temperature and liquid-nitrogen temperature. It was found that lower temperatures were not necessary because the resistivity at liquid-nitrogen temperatures is close to the residual resistivity. The resistivities were measured to an accuracy of 0.01%. Figs. 1 and 2 show $\rho_{77.8°K}/\rho_{293°K}$ as functions of the quenching temperature. The presence of a minimum in the resistivity, which is clearly seen in these experimental results, can be explained by the existence of fluctuations in composition and order near the ordering temperature, or the existence of short-range order which in these alloys tends to increase the

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87901

S/126/60/010/003/009/009/XX
E032/E314

The Temperature Dependence of the Residual Electrical Resistivity of Ordered Alloys

resistivity (Krivoglaz and Rybak - Ref. 8 and Katsnel'son - Ref. 9).
There are 2 figures and 9 references: 6 Soviet and 3 non-Soviet.

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals of the AS USSR)

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87902

S/126/60/010/003/009/009/XX
E032/E314

The Temperature Dependence of the Residual Electrical Resistivity of Ordered Alloys

Fig.1

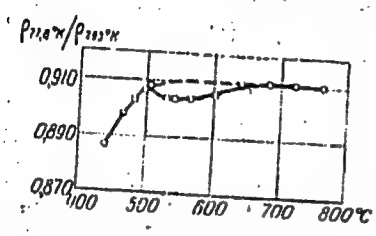

Рис. 1.

Fig.2

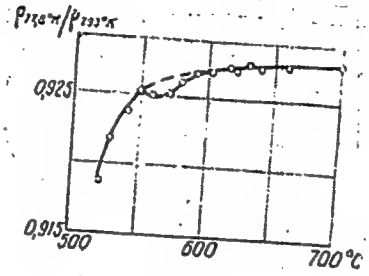

Рис. 2.

SUBMITTED: May.30, 1960

Card 4/4

L 12480-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/HW-2

S/185/63/008/003/002/009

AUTHOR: Volkenshteyn, N. V., Galoshina, E. V., Turchinskaya, M. I., Fedorov, G. V. and Tslovkin, Yu. N.

TITLE: Effect of ordering on electrical magnetic, galvanomagnetic and thermal properties of Ni_3Mn alloy

PERIODICAL: Ukrains'kyy Fizychnyy Zhurnal, v. 8, no. 3, 1963, 306-312.

TEXT: The article investigated the electrical conductivity, magnetization, Hall effect and heat capacity of alloys near the stoichiometric composition Ni_3Mn over a wide range of temperatures down to 1.50 K both in disordered and in states with varying degrees of long-range order. The data which were obtained show that the disordered state and the initial stages of ordering where short range order appears are very complex for Ni_3Mn alloy. The temperature dependence of electrical conductivity was investigated near the Curie point. Magnetization measurements were made on single crystals. The Hall emf for ordered state of this alloy as a function of induction has normal character for ferromagnetic materials. The article contains 7 figures and a 6 item bibliography.

ASSOCIATION: Institut Fiziki metallov AN SSSR (Institute of Metal Physics of the Academy of Sciences of the USSR, Sverdlovsk)

Card 1/1

VOLKENSHTEYN, N.V.; GALOSHINA, E.V.

Temperature dependence of paramagnetic susceptibility electric conductivity and the Hall effect in metal scandium. Fiz. met. i metalloved. 16 no.2:298-301 Ag '63. (MIRA 16:8)

1. Institut fiziki metallov AN SSSR.
(Scandium—Magnetic properties)
(Electric conductivity)
(Hall effect)

L 15039-65 EWT(m)/EPF(c)/EWP(t)/EWP(b) Pr-4 AFWL/SSD/AS(mp)-2/ESD(gs)/ESD(t)
JD/JG/MLK
ACCESSION NR: AT4048697 S/0000/64/000/000/0079/0085

AUTHOR: Volkenshteyn, N. V.; Fedorov, G. V.; Galoshina, E. V.; Sturtsev, V. Ye.

TITLE: Temperature dependence of the electrical and galvanomagnetic properties of rare earth metals 27

SOURCE: Vsesoyuznoye soveshchaniye po splavam redkikh metallov, 1963. Voprosy* teorii i primeneniya redkozemel'ny*kh metallov (Problems in the theory and use of rare-earth metals); materialy* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 79-85

TOPIC TAGS: rare earth metal, rare earth electrical property, rare earth galvanomagnetic property, rare earth magnetic property, Hall effect, rare earth atomic structure

ABSTRACT: The electrical resistance and Hall effect are excellent indicators of the characteristics of the electronic structure of solid bodies. The present paper describes simultaneous measurements of the electrical resistance and the Hall effect for a large group of highly purified rare earth metals. The electrical resistance of neodymium, europium, gadolinium, terbium, dysprosium, holmium, erbium and ytterbium was measured by a common potentiometer in a metal cryostat at temperatures between room and 4.2K. The electrical resistance differed significantly from that of the usual metals with low resistance. The temperature relationships could be used to divide the rare

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earth metals into four groups. The first group contains neodymium and ytterbium, which do not show a linear relationship in the above-mentioned temperature interval. The second group includes dysprosium, holmium and erbium, which show breaks in the curves and low resistance maxima when passing from the paramagnetic into the anti-ferromagnetic condition. The third group contains gadolinium and terbium, which show a sharp break when passing from the paramagnetic to the anti-ferromagnetic condition, with a linear relationship in the paramagnetic field. Europium has a special place among the rare earth metals. It shows a sharp drop in electrical resistance below the point of passage from the paramagnetic into the anti-ferromagnetic condition. The detailed behavior of europium requires further investigation. Analysis of the curves for all the rare metals shows that the specific electrical resistance at equivalent temperatures is higher than for metals in the first group of the periodic table. The Hall effect was measured with a DC potentiometer in a cryostat for europium, holmium, erbium and dysprosium, the authors being the first to measure the Hall effect of europium and holmium. Temperature variations did not change the Hall effect. On the basis of these tests and publications by C. J. Kevan, S. Legvold and G. S. Anderson, it can be seen that all the rare earth metals may be divided into a "light"group (up to gadolinium) and a "heavy" group, in both of which the conductivity depends on the electronic bonding. The paper further describes

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the variations of the Hall effect depending on the temperature, induction and other factors. Scandium should be noted specifically. The 99.86% pure scandium tested contained 0.04% Cu, less than 0.01% Mo, 0.03% Fe, 0.016% N_2, 0.034% O_2, 0.001% H_2 and 0.008% Cd which was distilled under a vacuum. The specific electrical resistance of scandium is very high and exceeds that of copper and calcium. The resistance drops linearly with temperature to the temperature of liquid helium. Paramagnetic susceptibility was also found by the Faraday method. This did not depend on the magnetic field, but rather on the temperature, decreasing as the temperature rose. In conclusion it is noted that the appearance of one electron in the 3d-shell alters the physical properties of scandium in comparison with the other metals. Orig. art. has: 7 figures.

ASSOCIATION: None

SUBMITTED: 13Jun64 ENCL: 00 SUB CODE: MM, EM

NO REF SOV: 002 OTHER: 012

Card 3/3

VOLKENSHTEYN, N.V.; GALOSHINA, E.V.

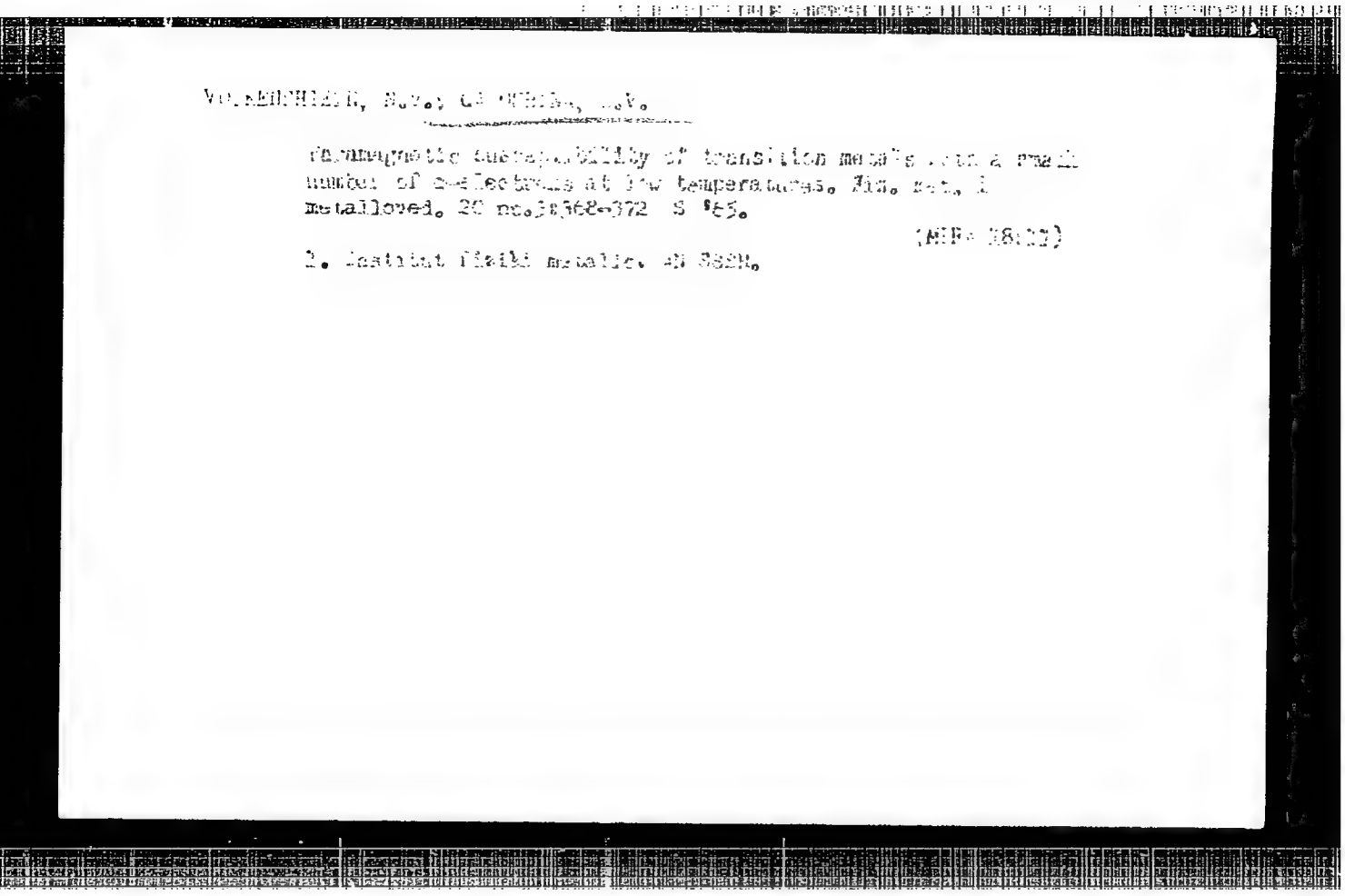
Superconductivity V—Sc alloys. Zhur. eksp. i teor. fiz. 47 no.3: 812-813 S '64. (MIRA 17:11)

1. Institut fiziki metallov AN SSSR.

VOLKENSHTEYN, N.V.; GALOSHINA, E.V.

Hall effect and the paramagnetic susceptibility of hafnium. Fiz.met. i metalloved. 18 no.5:784-786 N '64. (MIRA 18:4)

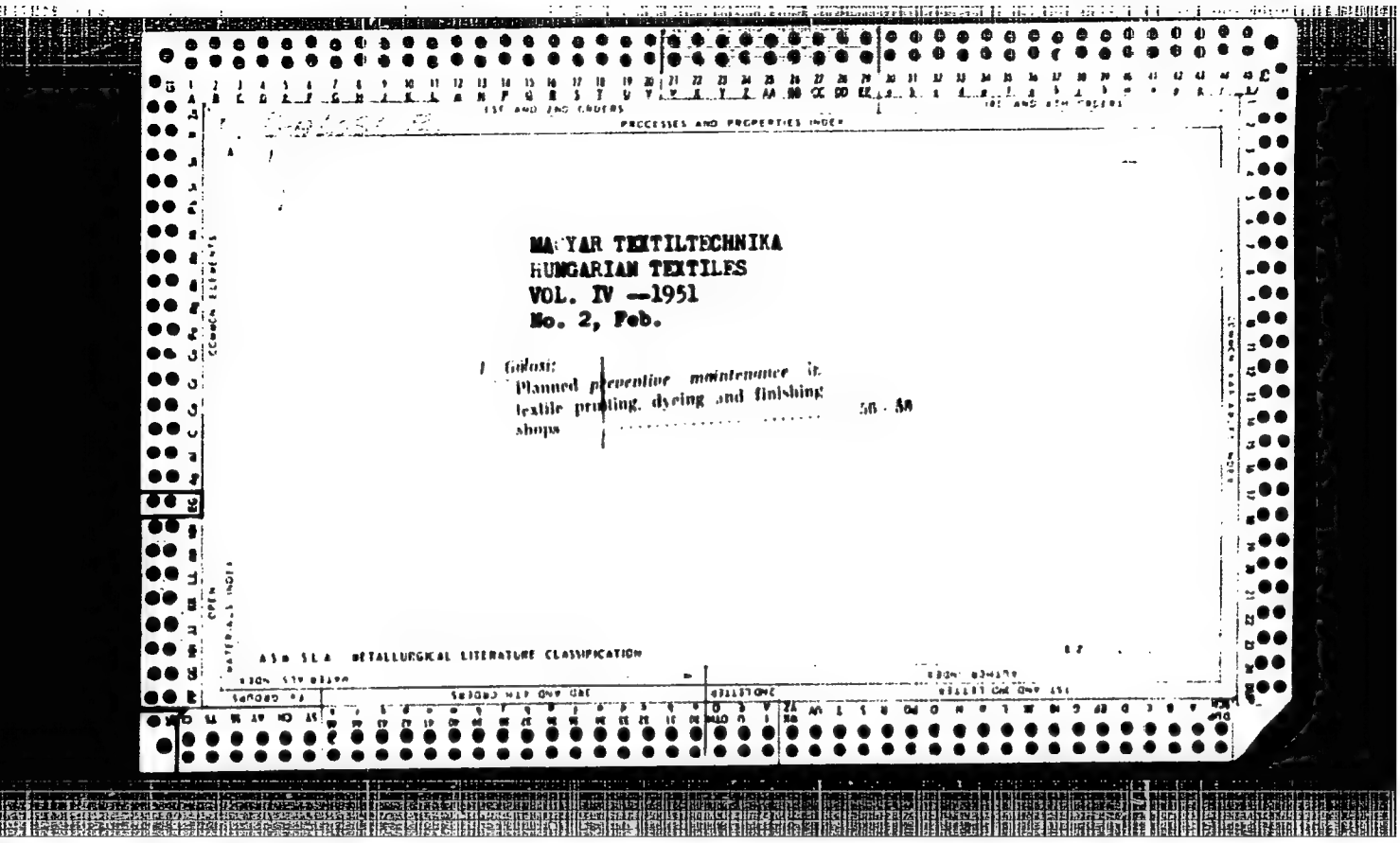
1. Institut fiziki metallov AN SSSR.



VOLKENSHTEYN, N.V.; GALOSHINA, E.V.

Hall effect in transition metals with a small number of d-electrons. Fiz. met. i metalloved. 20 no.3:475-478 S '65. (MIRA 18:11)

1. Institut fiziki metallov AN SSSR.



MAGYAR TEXTILTECHNIKA
HUNGARIAN TEXTILES
VOL. IV —1951
No. 2, Feb.

Gálosi:
Planned preventive maintenance in textile printing, dyeing and finishing shops ..... 56 - 58

GALOSI, E.

11. Energy norms in the textile finishing industry — *Energianormálfák a textilkikészítőiparban.* — E. Galosi. (Hungarian Power Economy — *Magyar Energiagazdaság* — Vol. 6, 1953, No. 7, pp. 168—172, 3 tabls.)

The determination of industrial energy norms is very important in power economy however the establishment of norms which take all factors into consideration requires a great number of successive measurements. Norms satisfactory for practical use may be elaborated by a more simple method for textile finishing. The products are classified according to unit weight and entered as headings of columns in a table. All steam consuming operations are posted in the left hand column together with the steam consumption per kg determined by individual and group measurements or even by computation. After determining the steam consumption of the various operational stages by multiplication and then by addition an index is obtained for each commodity. At the pre or post calculation of the value of the monthly steam consumption of the plant computed by the average indexes the following two factors must be used for corrections. One is the quantity factor for which the formula $S = S_0 + a \cdot x$ is valid where x = the quantity produced monthly. Simple correction tables may be computed by this formula. The other is the season factor and has an empirical value. Power consumption indexes may be determined by a similar method using other correction factors.

GALOSI, E.

Detrimental electrostatic phenomena and their elimination in the finishing technology by high-voltage ion accelerators. p. 419.

MAGYAR TEXTILTECHNIKA. (Textilipari Muszaki es Tudomanyos Egyesulet) Budapest, Hungary, Vol. 10, no. 11/12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

GALOSI, E. ; BENCZE, K.

The Leipzig Fair seen by the eyes of a finisher. p. 258.

MAGYAR TEXTILTECHNIKA. (Textilipari Muszake es Tudomanyos Egyesulet)
Budapest, Hungary, Vol. 11, no. 6, June 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

EGYED, Ferencne, dr.; GALOSI, Elemer

Water supply of textile finishing plants. Magy textil 13 no.5:208-213 My '61.

1. "Magyar Textiltechnika" szerkeszto bizottsagi tagja(for Galosi)

FERENCZY, St., ing.; MITROFANOVICI, V.; HARANGOZO, Nicolae; GALOSI, Tiberiu; TEODORESCU, S., dr.; MIHALACHE, Stefan; HERSTIG, I.; GRADINARU, N.; CASSABALIAN, S.

Reducing the cost price in the chemical industry. Probleme econ 16 no.10:153-160 O '63.

1. Director, Intreprinderea "Solventul", Timisoara (for Ferenczy). 2. Ing. sef adjunct, Intreprinderea "Solventul", Timisoara (for Mitrofanovici). 3. Director, Fabrica de lacuri si vopsele din Timisoara (for Harangozo). 4. Director, Fabrica chimica Timisoara (for Galosi). 5. Director, Intreprinderea Industriala de Stat "Tableta", Bcuresti (for Teodorescu). 6. Contabil sef, Intreprinderea Industriala de Stat "Tableta", Bucuresti (for Mihalache). 7. Director, Fabrica de medicamente "Biofarm", (for Herstig). 8. Director, Uzina de superfostati si acid sulfuric Navodari (for Gradinaru). 9. Sef serviciu plan, Uzina de superfosfati si acid sulfuric Navodari (for Cassabalian).

GALOTZY, J.

Phase-shift control for short-circuit tests.

p. 388
Vol. 31, no. 6, June 1955
PRZEGLAD ELEKTROTECHNICZNY
Warszawa

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 2
Feb. 1956

S/032/61/027/008/005/020
B107/B206

AUTHORS: Blanter, M. Ye., Koryagin, K. P., Martishyn, O. V., and Galov, A. G.

TITLE: A method for the determination of the hardenability of a steel with reduced hardenability

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 8, 1961, 978-980

TEXT: A method for determining the hardenability of low-carbon steels (0.1-0.2 % C) was elaborated. The two types used were Ст3 (Stal' 3) and Ст15 (Stal' 15). The specimens were not of the usual L shape, but had the shape of a truncated cone (90 mm high, lower diameter 25 mm, upper diameter 5 mm). After quenching from 900°C in 8-15 % NaOH, the specimens were cut in half along the axis and polished, and the Vickers hardness was then determined along the axis. Its variation along the axis is approximately given by the equations $H_V = 376 - 5.7x + 0.035x^2$ (for steel 15) and $H_V = 380 - 3.7x + 0.02x^2$ (for steel 3), respectively. H_V is the Vickers hardness, and x is the distance from the upper end of the truncated

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cone. Cylinders with a diameter of 8-20 mm and a height-to-diameter ratio of 4 were cut from the same steels. After quenching, the cylinders were cut perpendicular to the axis, and the radial change of the Vickers hardness was investigated. It follows the equation $H_V = A + Bx_1^2$. x_1 is the distance from the cylinder center; A and B are coefficients (see Table). From the relations mentioned it is possible to calculate the values of x and x_1 for which the rate of cooling is equal. It is thus possible to calculate the hardness of a cylinder by determining the hardness on a conical specimen. The relation holds for any steel, since the criterion of equal hardness virtually corresponds to the same rate of cooling. A nomograph was drawn for the relation (Fig.). An example is calculated to illustrate the mode of operation. There are 5 figures, 2 tables, and 2 Soviet references.

ASSOCIATION: Vsesoyuznyy zaochnyy mashinostroitel'nyy institut (All-Union Machinery Correspondence Institute)

GALOVATCHEVA, R. S.

USSR/Microbiology. Soil Microbiology F-3

Abs Jour : Ref Zhur-Biologiya, No 1, 1957, 573

Author : R. S. Galovatcheva
Inst :
Title : On the Problem of the Role of Clostridium Pasteurianum in the Nutrition of Plant Roots

Orig Pub : Izv. AN EST SSR, 1955, No 2, 273-280

Abstract : Bacterization of the seeds with Clostridium pasteurianum increased the yield of oats by 15.9% in an acid podzol soil in a vegetation experiment. The increase in the yield was 6.1% when shale ash was added to the same soil, while the increase in the yield from the peat moss carbonic soil was 10.9%.

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USSR/Microbiology. Soil Microbiology F-3

Abs Jour : Ref Zhur-Biologiya, No 1, 1957, 573

Abstract : The greatest yield was produced by the combined introduction of Clostridium pasteurianum and phosphorus bacteria into acid soil which, in the author's opinion, bears witness to the existence of symbiotic relations between these microorganisms. In a field experiment on barley the inauculation of the seeds with Clostridium pastirianum increased the yield by 11.4% as compared with non-bacterized control. Clostridium pastirianum introduced with the seeds, developed with intensity in the rhizo-sphera of the plants, reaching a quantity of 1,000,000 per one/g of land.

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PHASE I BOOK EXPLOITATION SOV/4966

Soveshchaniye po poluprovodnikovym materialam. Moscow, 1957

Voprosy metallurgii i fiziki poluprovodnikov; trudy 3-go soveshchaniya. (Problems in the Metallurgy and Physics of Semiconductors; Transactions of the Third Conference) Moscow, Izd-vo AN SSSR, 1959. 129 p. Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Resp. Ed.: N. Kh. Abrikosov, Doctor of Chemical Sciences; Ed. of Publishing House: P. F. Zolotov.

PURPOSE: This collection is intended for technical and scientific personnel concerned with the investigation and production of semiconductor materials. It may also be used by students in schools of metallurgy.

COVERAGE: The collection contains reports submitted at the Third Conference on Semiconductor Materials, held at the Institute of Metallurgy imeni A. A. Baykov, AS USSR, Moscow, in May 1957. The reports deal with problems of obtaining and investigating germanium, silicon, and semiconductor compounds. The collection was first edited by D. A. Petrov, Doctor of Technical Sciences. References accompany most of the reports.

AVAILABLE: Library of Congress

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28304
S/081/61/000/016/007/040
B118/B101

18.9500

AUTHOR: Galovanov, V.V.

TITLE: The problem of the role of some factors in the growing of single crystals from the melt

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1961, 39, abstract 16Б256 (Sb"Vopr. metallurgii i poluprovodnikov". M., AN SSSR, 1959, 23-28)

TEXT: The processes taking place during the crystallization from the melt have been studied. Practical conclusions were drawn therefrom in order to obtain a homogeneous single crystal by Chokhral'skiy's method. The role of the temperature gradient at the interface of two phases (crystal - melt), of the concentration of the impurity, of the pulling rate, and of the conditions of mixing are discussed. The minimum value of the temperature gradient must be chosen such that the formation of a solid phase at some distance from the crystallization front is impossible. The decrease of the pulling rate makes it possible to lower the value of the temperature gradient, since the amount of crystallization heat

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evolving per unit time decreases while the impurity in the melt is distributed more uniformly. At low impurity concentrations, it is convenient to keep the temperature of the melt constant while the crystal is being pulled, whereas at high impurity concentrations it is necessary to regulate the temperature of the melt according to a program. To grow a crystal of constant cross section at a constant temperature of the melt and at a constant pulling rate, it is necessary to ensure a constant temperature at the interface of the two phases. The velocity (frequency) of vibrations of the crystallization front relative to the surface of the melt must be a minimum. The accuracy of temperature regulation of the melt must be characterized by the maximum rate of variation of the temperature of the melt with time. The position of the crystallization front can be stabilized by increasing the temperature gradient at the interface of the two phases. The design of a device developed on the basis of practical conclusions is presented. The growing of InSb single crystals with the aid of the device is described. [Abstracter's note: Complete translation.]

SIROTANOVIC, Ksenija; BAJLON-ROCEN, Milka; GALOVIC, Dragica

Addition of mercaptans to unsaturated aldehydes. Pt. 1. Glas Hem dr 25/26 no.8/10:509-518 '60/'61.

1. Faculty of Sciences, Institute of Chemistry, Beograd.

[illegible], [illegible].

Contribution to the knowledge of the structure of Kri[illegible]. p. 255.
[illegible], Vol. 5/7, 1951/55 (published 1954).

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 1[illegible], Oct. 1955, Uncl.

GALOVIC, S.

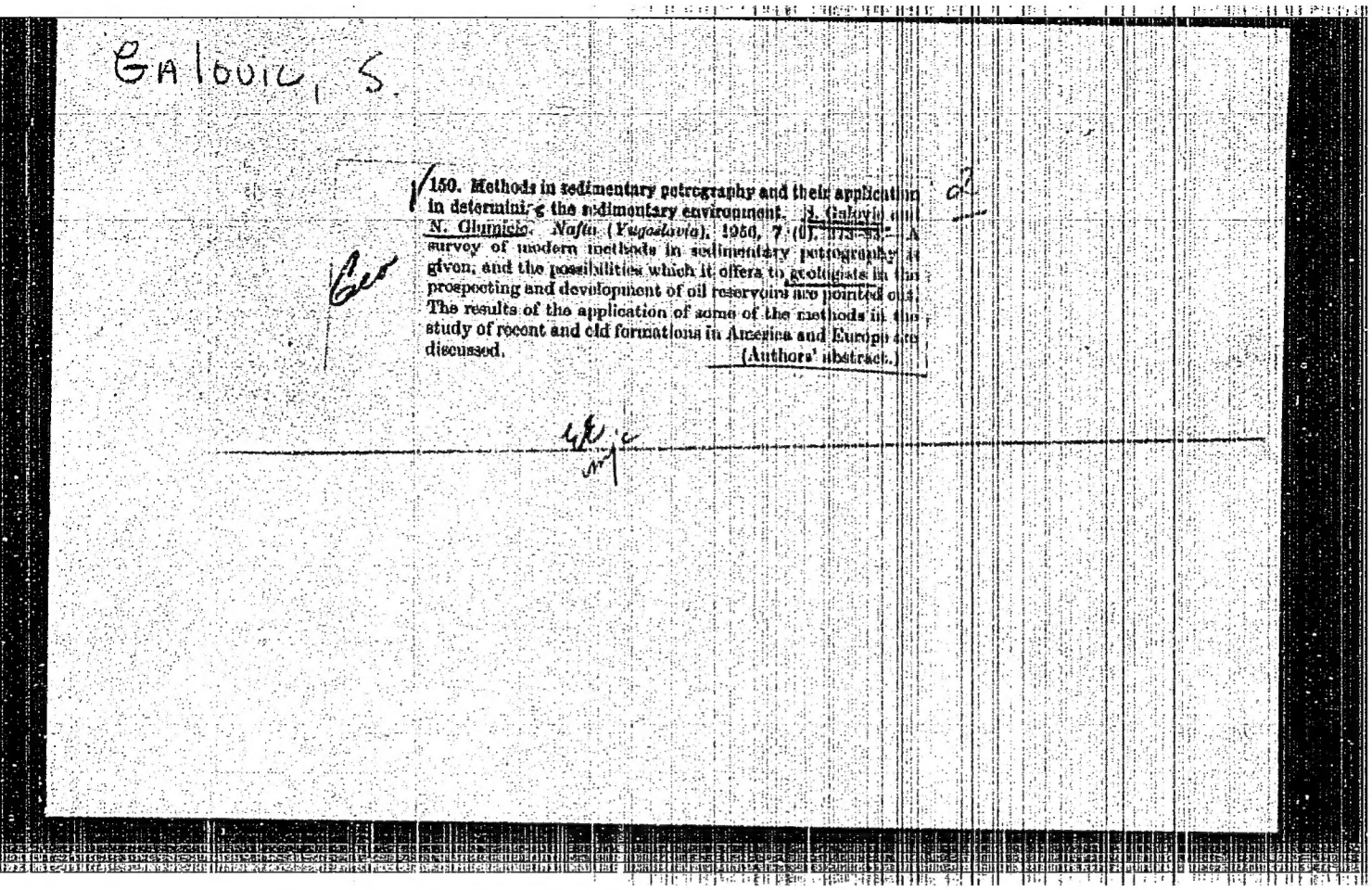
YUGO

678. The problem of exploitation of the Sumecani field, Croatia. S. Galovic. *Nafta (Yugoslavia)*, 1954, 5 (10), 271-81.—The Sumecani production field represents the highest local part of the Kriz structure. The field size is 720 acres. The base rock in the depth of 1500-2600 ft is granite or gneiss superseded by Upper Oligocene sweet-water layers of up to 650 ft strength. These are covered by second Mediterranean and Sarmate layers. On top of the Miocene layers are Pliocene layers. Crude-bearing layers are developed in the head strata of Upper Oligocene and Lower Pliocene. The field was discovered in 1949. The reserves in the Oligocene were estimated to be 628,000 tons. Up to 1 Aug. 1954 the field gave 246,000 tons. The crude is very viscous, 17° API gravity, and the field is highly water-bearing. It was originally partially broken up in a 100 m net. Later on the 50 m net was adopted. A comparatively unsatisfactory development of the collecting system and economical reasons suggested a net more than 100 m and less than 300 m. Upon a technical and geological, as well as economic analysis, a net of 200 m, equalling 9.65 acres, per well, proved to be the most satisfactory from the engineering and technical viewpoint.

(Author's abstract.)

GaLoviC, S.

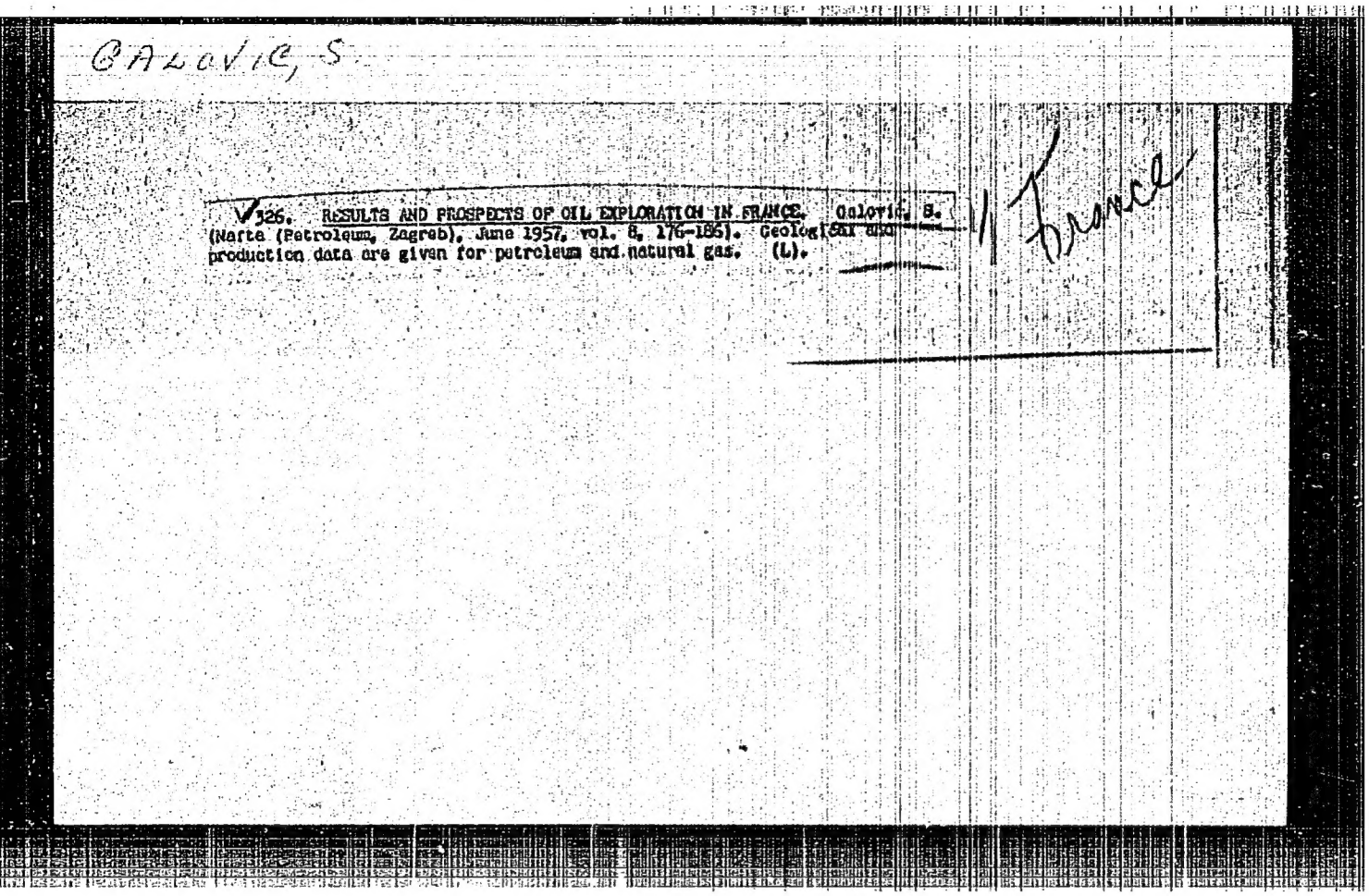
738. Geological structure of the Bujavica gas field. S. Galović. *Nafta* (*Yugoslavia*), 1950, 7 (1), 1-9.—The Bujavica gas field, E. of Banova Jaruga, which was discovered in 1918, had been exhausted by 1942. Judging from scarce data and reserve estimations, the field might have yielded ca 50 million cu. m. of gas. The structure of Bujavica is a dome with a long axis of 1100 m. and a short one of 500 m. Geographically and geologically the structure forms part of the trough of the Rova river, a left tributary of the Sava river. The basic rocks developed as granite were met at the depth of 1332.1 m. In transgressive form upon the granite are deposited oligo-miocene limnetic sediments developed in facies of shales, sandstone, and conglomerates. These sediments are 580 m. thick. Upper miocene deposits developed in facies of shales, lithothamnia-sandstones, and slaty bituminous shales lie from 752 to 588 m over the oligo-miocene sediments. The pliocene sediments of the typical Sava basin development in facies of limy shales and sands lie concordantly upon the miocene deposits. The pay belongs to the middle pliocene with Paradacna Abichi. The lower gas horizon was recognized at a depth of 370-400 m. Its thickness amounted to 2-10 m. A restricted area of the gas horizon contained a small amount of oil which had not been exploited. The upper or the so-called principal gas horizon was discovered at 340-360 m. Its thickness was 2.6-13 m, and it contained dry gas only. The gas was used for the production of carbon black in a small plant erected near the settlement of Bujavica, and for lighting of railway carriages. (Author's abstract.)



Gallović, S.

150. Methods in sedimentary petrography and their application in determining the sedimentary environment. S. Gallović and N. Glumičić. *Nafta (Yugoslavia)*, 1956, 7 (6), 173–93.—A survey of modern methods in sedimentary petrography is given, and the possibilities which it offers to geologists in the prospecting and development of oil reservoirs are pointed out. The results of the application of some of the methods in the study of recent and old formations in America and Europe are discussed. (Authors' abstract.)

Geo



Galović, S.

V326. RESULTS AND PROSPECTS OF OIL EXPLORATION IN FRANCE. Galović, S. (Nafta (Petroleum, Zagreb), June 1957, vol. 8, 176-186). Geological and production data are given for petroleum and natural gas. (L).

France

USSR/Nuclear Physics - Elementary Particles. C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8665

Author : Galovin, B.M., Dzhelepov, V.P.
Inst : ~~Institute~~ of Nuclear Problems, Academy of Sciences USSR
Title : An Investigation of the Elastic Scattering of 590 Mev Neutrons by Neutrons.

Orig Pub : Zh. eksperim. i teor. fiziki., 1956, 31, No 2, 194-201

Abstract : The differential scattering cross section for the elastic scattering of neutrons by neutrons has been determined using a neutron telescope. The effective energy of the neutrons was 590 Mev. A striking anitropy of the (n-n)-scattering has been established: $\sigma_{nn}(30^\circ)/\sigma_{nn}(90^\circ) = 2.3$. It has been found that the differential (n-n)-scattering cross section in the investigated angular region ($30^\circ \leq \vartheta \leq 90^\circ$) is equal to the proton-proton cross section at the same energy within experimental error. This fact, together with the results of our

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